

FIG.1

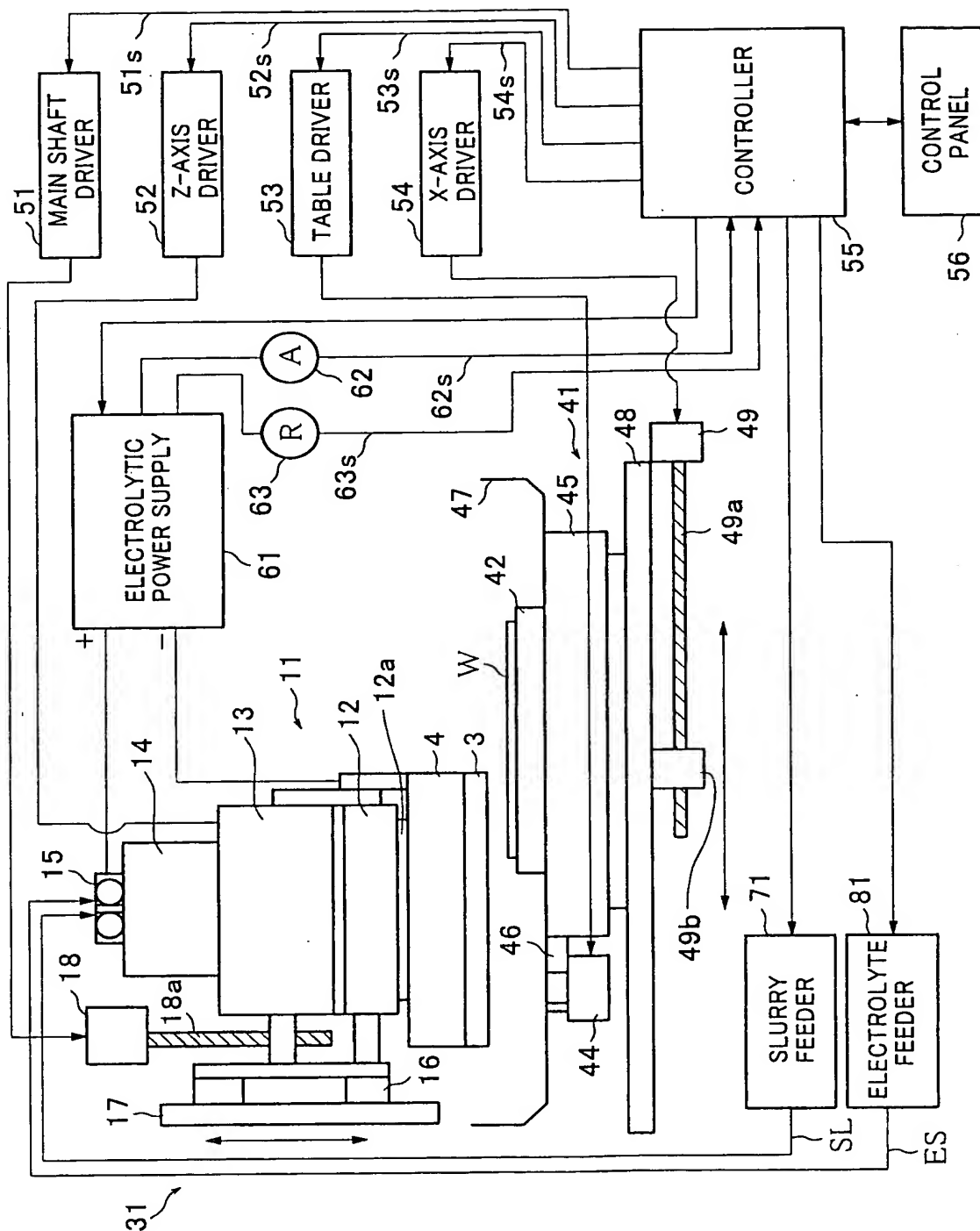


FIG.2

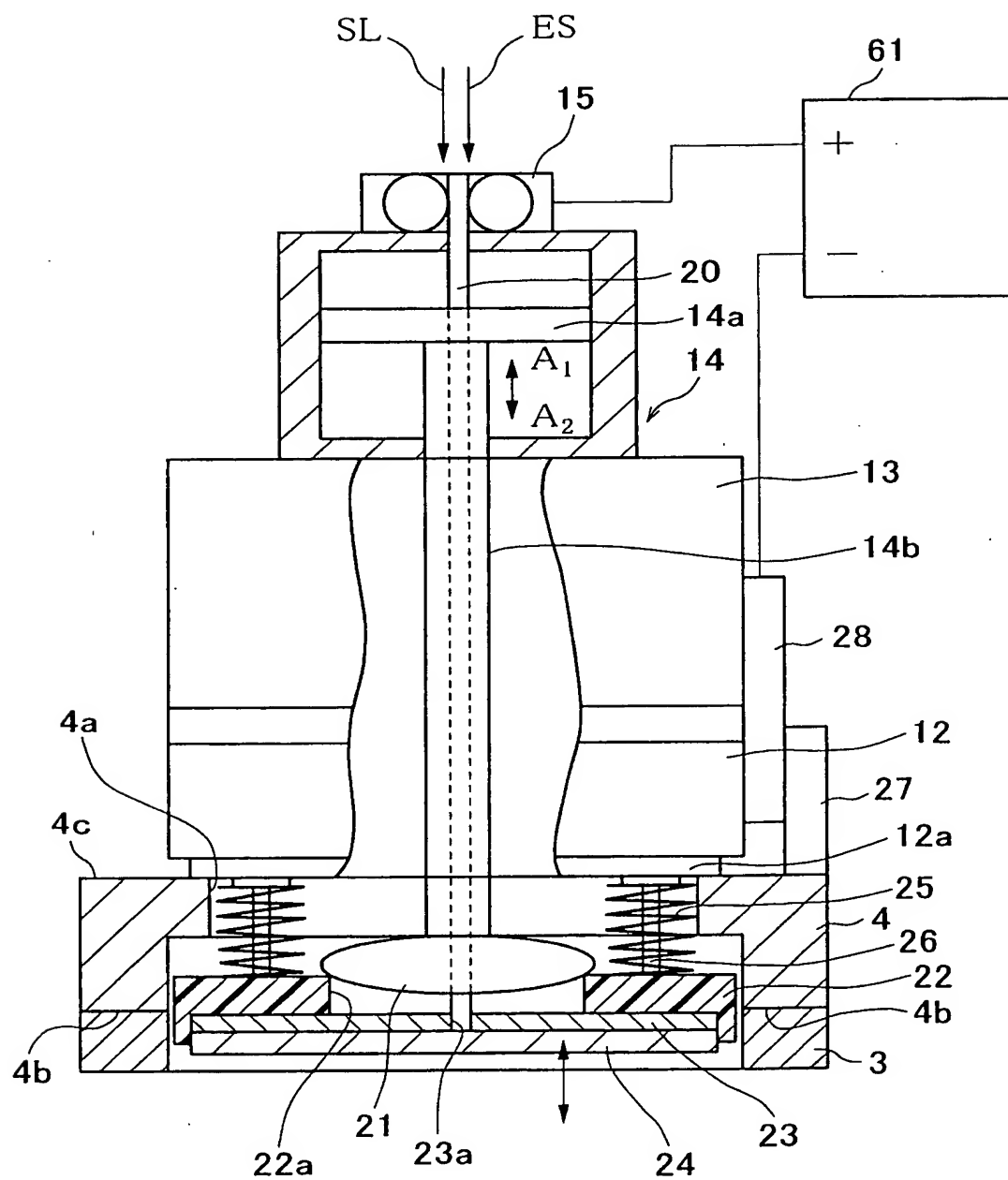


FIG.3A

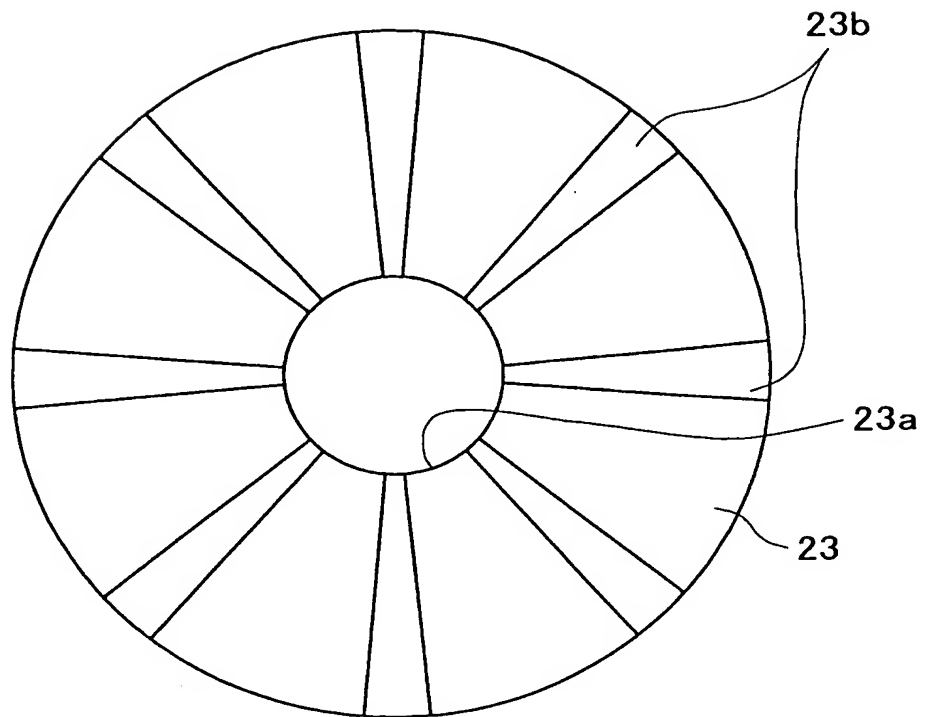


FIG.3B

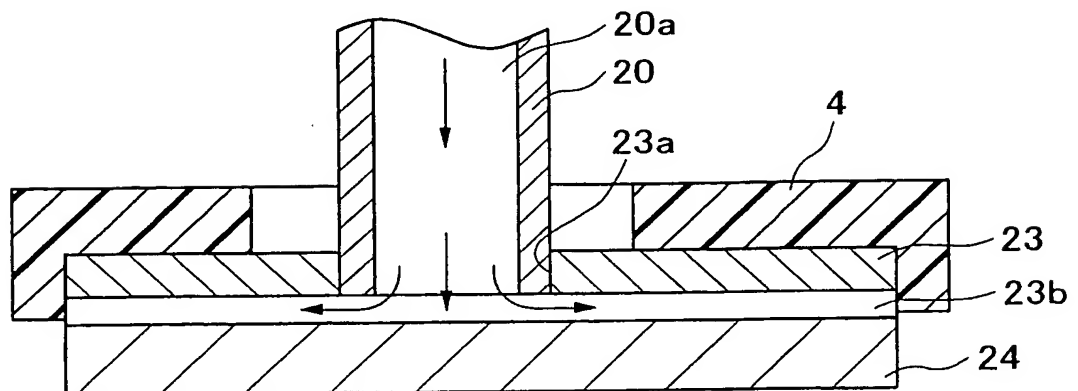


FIG.4

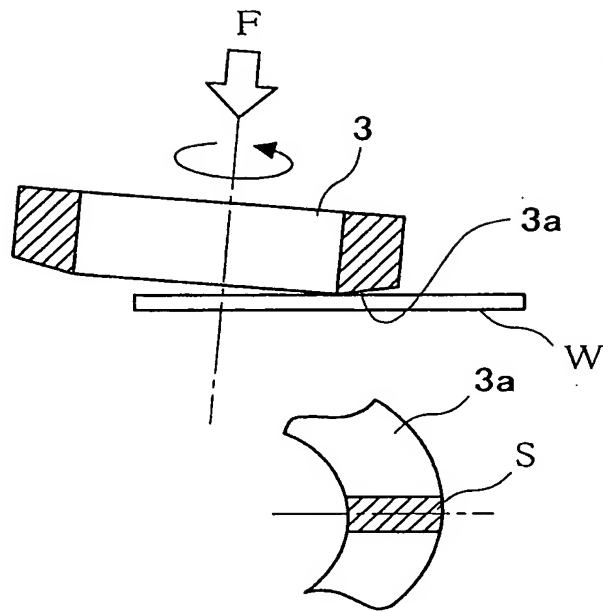


FIG.5A

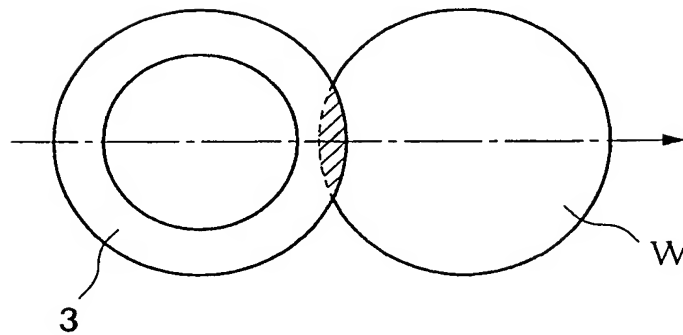


FIG.5B

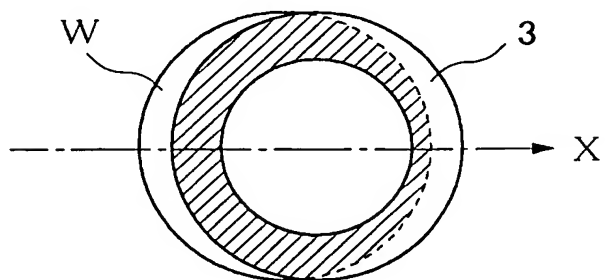


Fig. 1 is a schematic cross-sectional view of a piezoelectric actuator assembly. The assembly includes a base plate 3a, a central piezoelectric layer 3, and a top plate 4. A vertical rod 20 passes through the center, with a horizontal section 15 at the top. An electrical circuit 61 is connected to the top plate 4 and the piezoelectric layer 3. A coordinate system (X, Y, Z) is shown, with X pointing right, Y pointing up, and Z pointing out of the page. Labels include ES, SL, 15, 20, 3, 3a, 4, 22, 23, 24, 45, W, C, and 61.

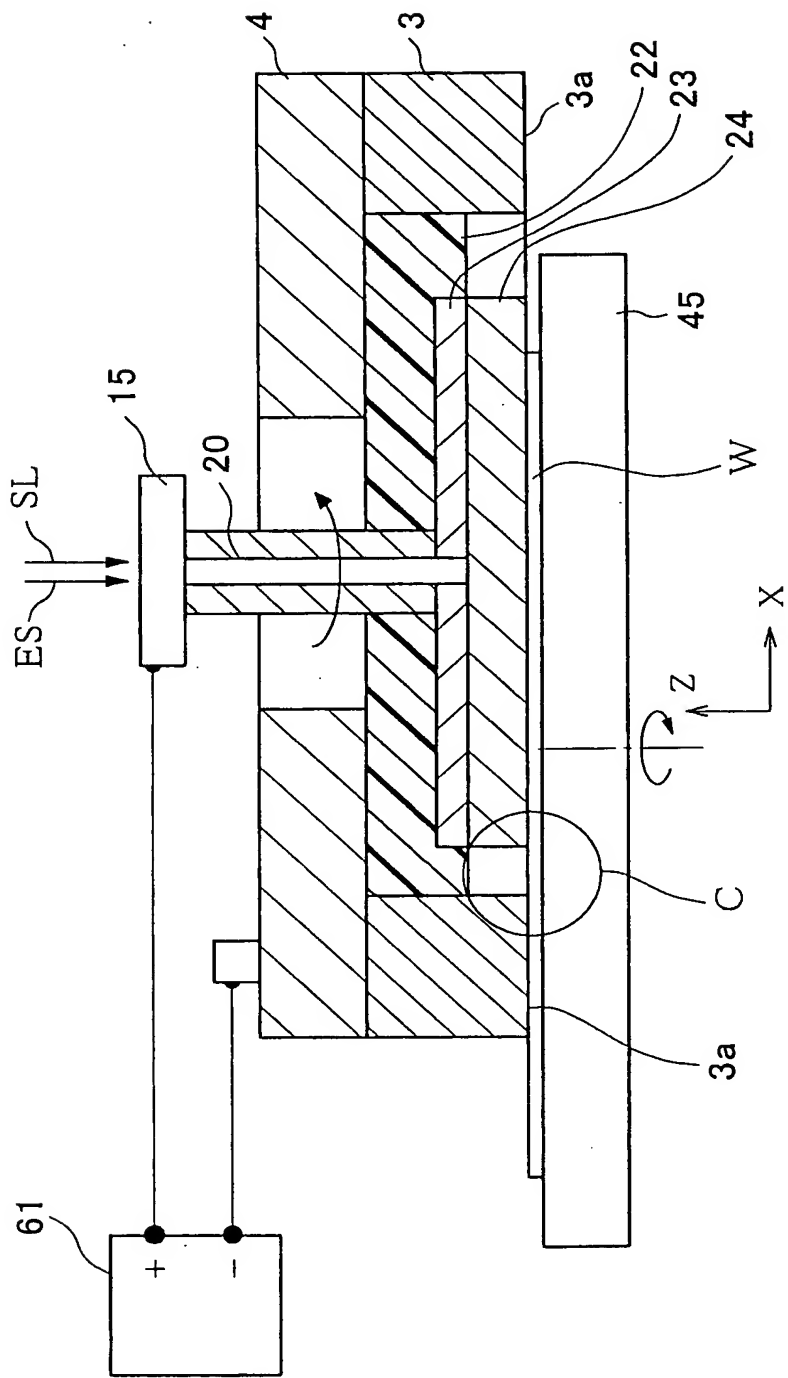


FIG.7

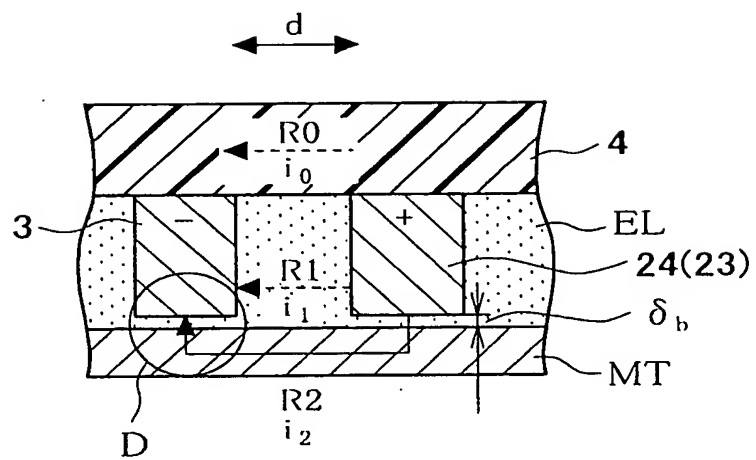


FIG.8

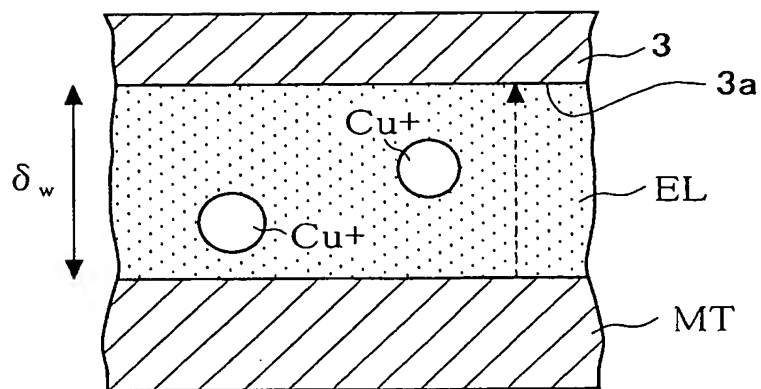


FIG.9

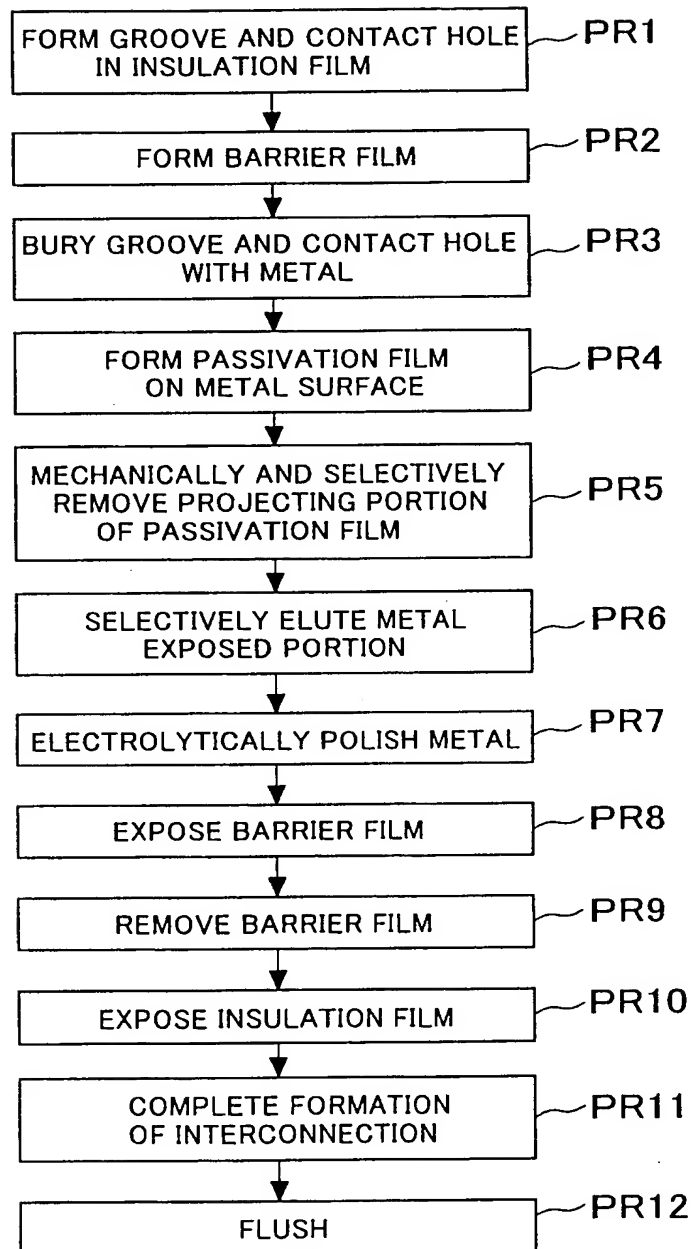


FIG.10

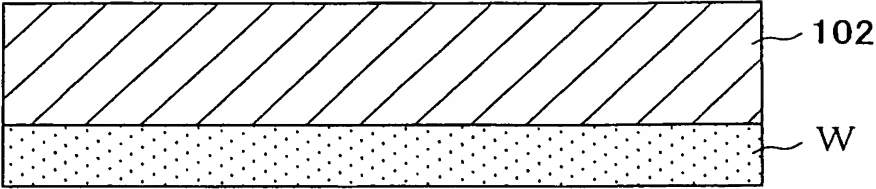


FIG.11

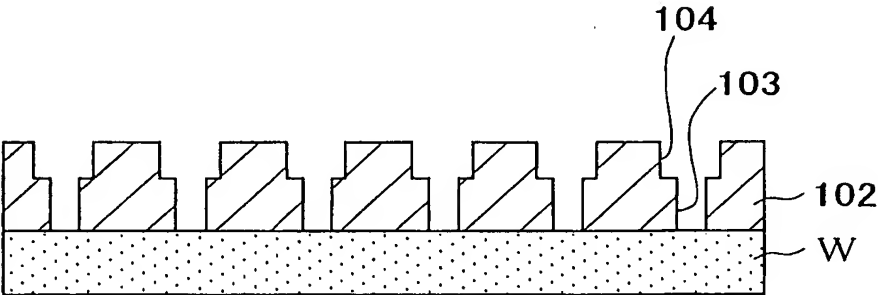


FIG.12

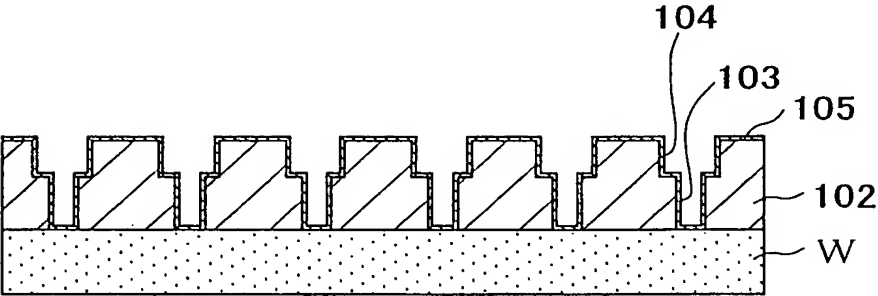


FIG.13

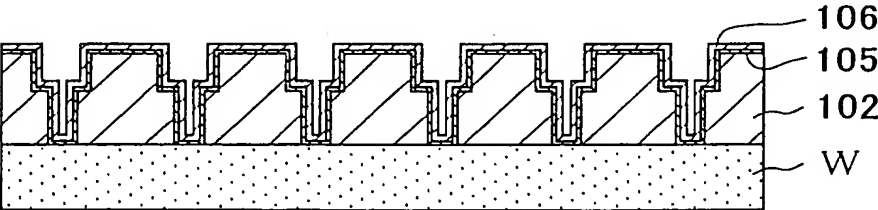




FIG.14

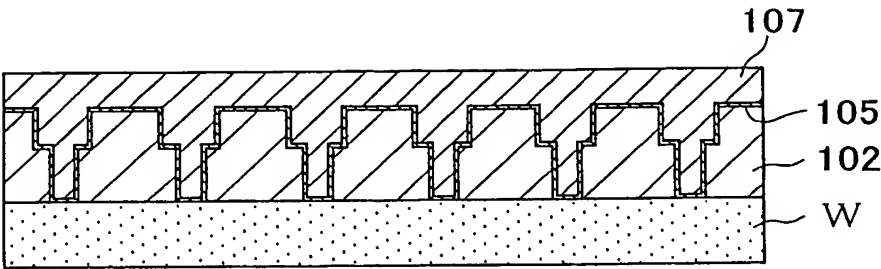


FIG.15

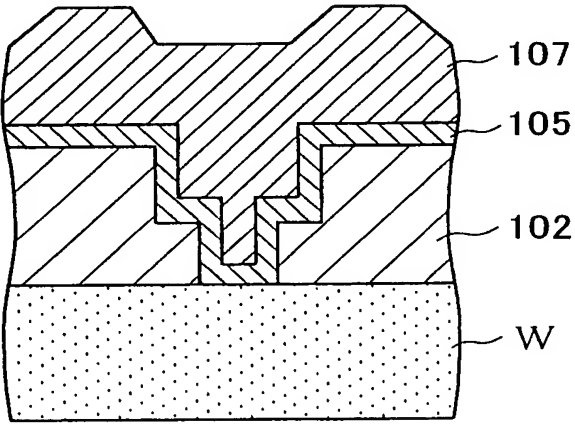


FIG.16

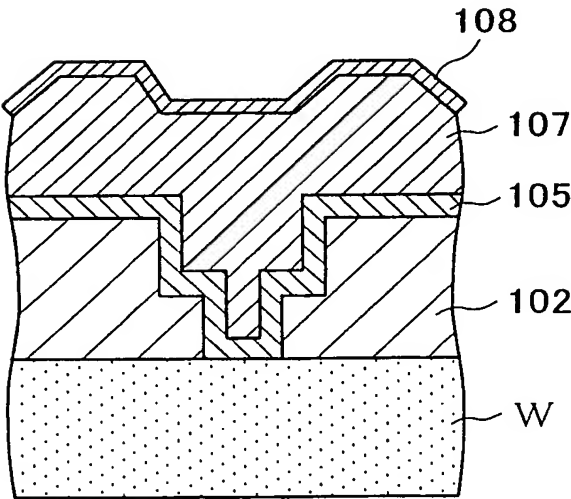


FIG.17

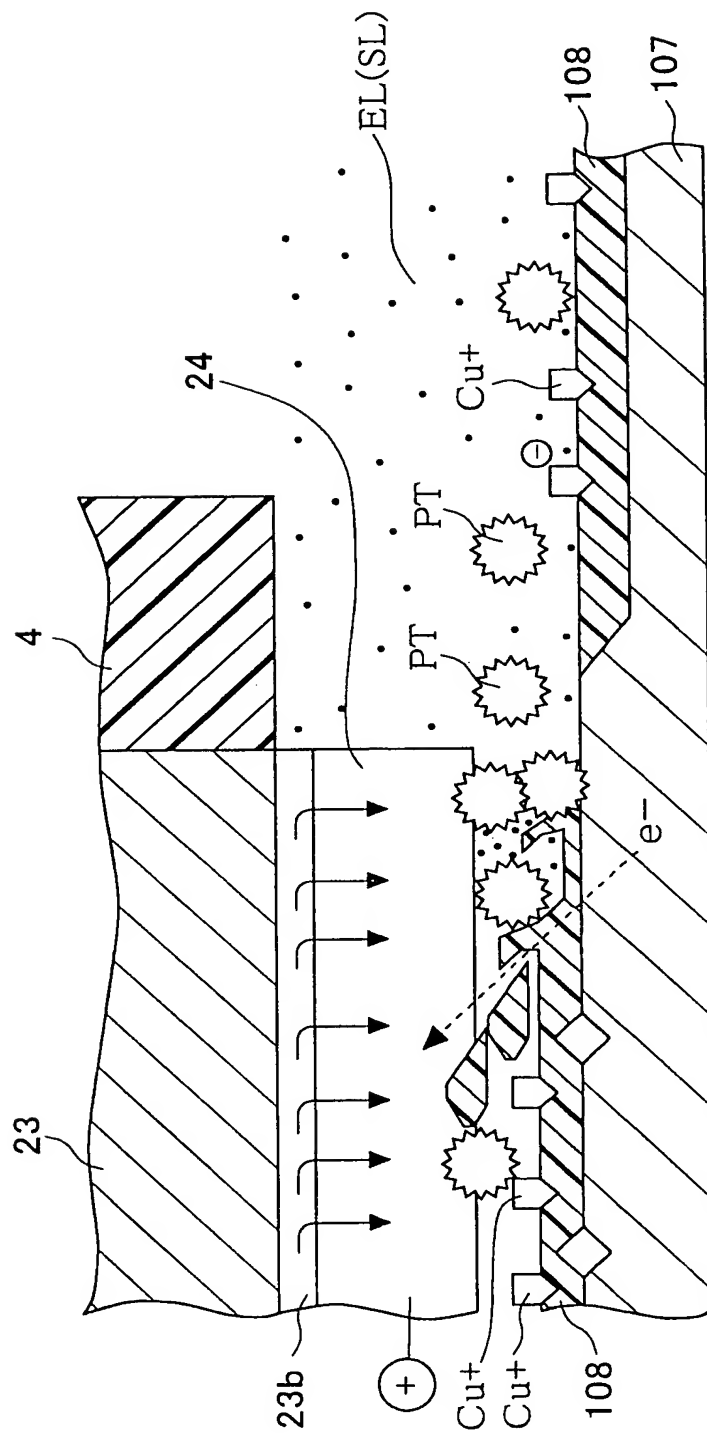


FIG.18

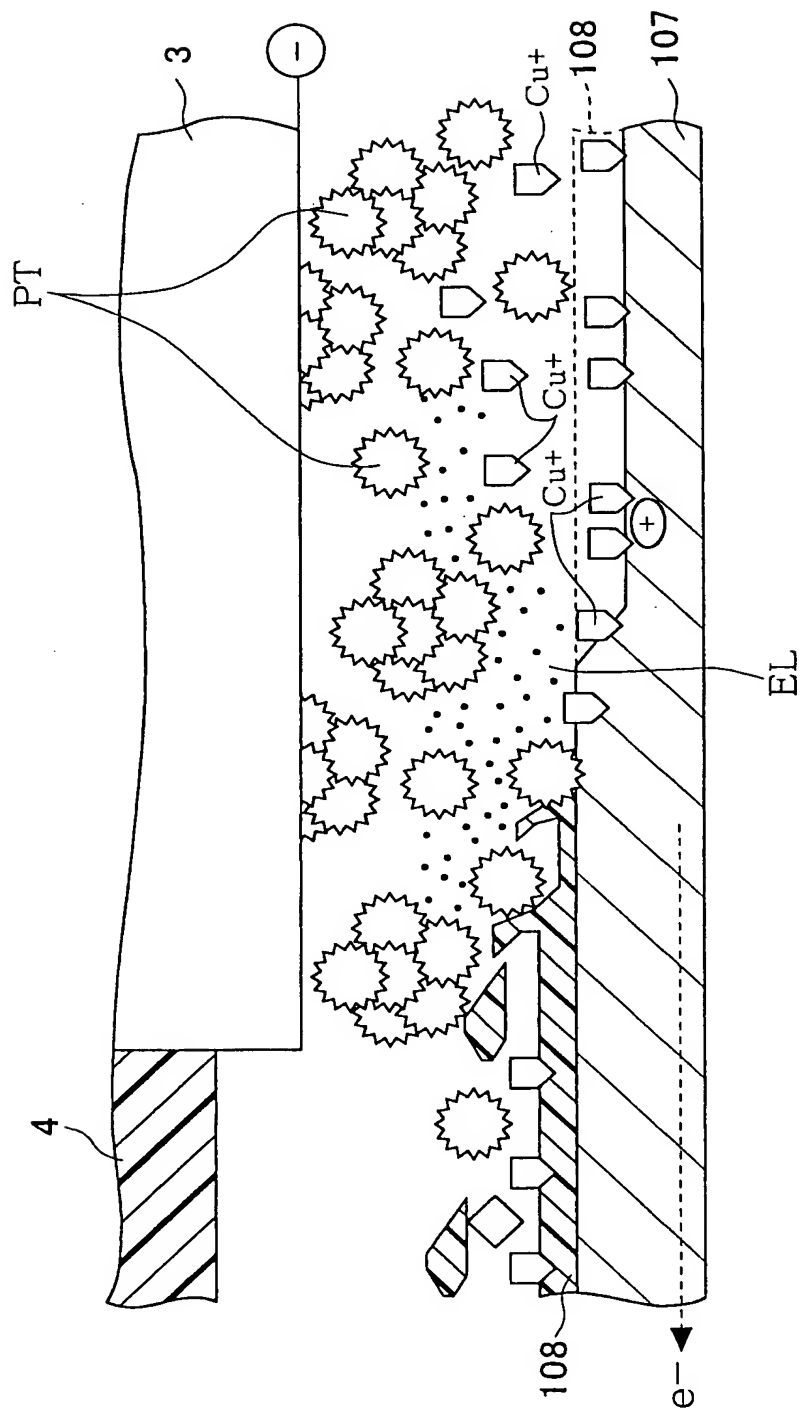


FIG.19

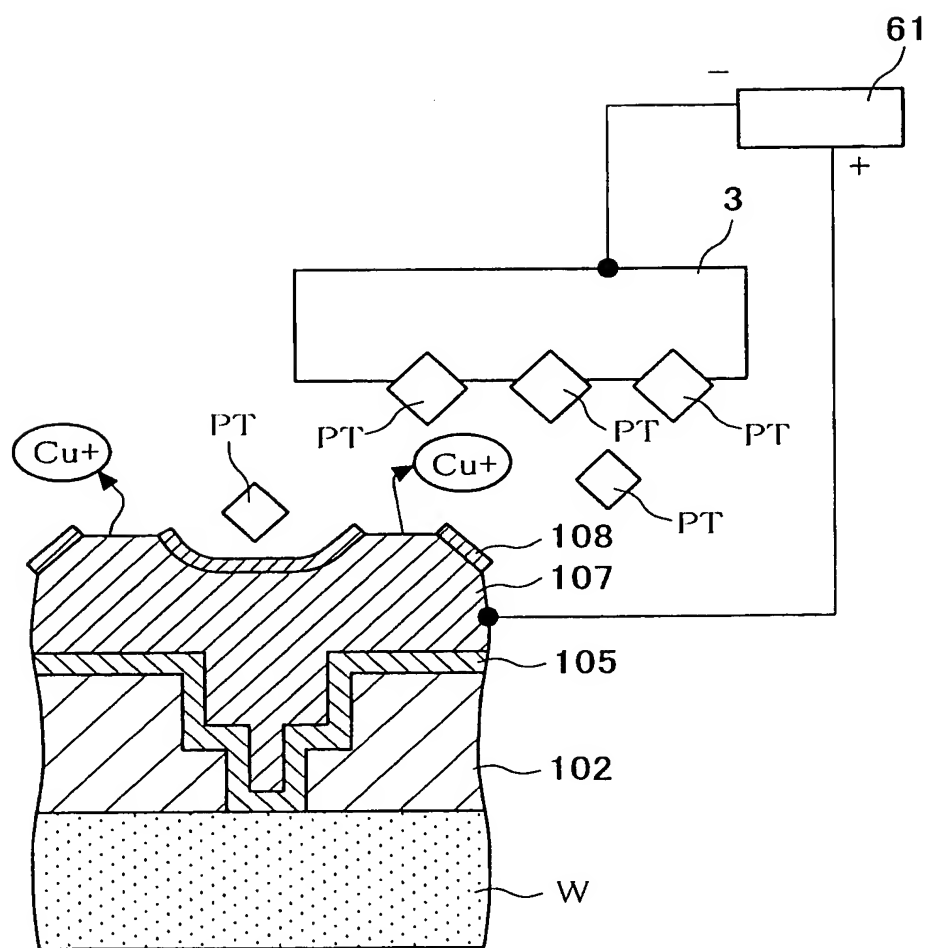


FIG.20

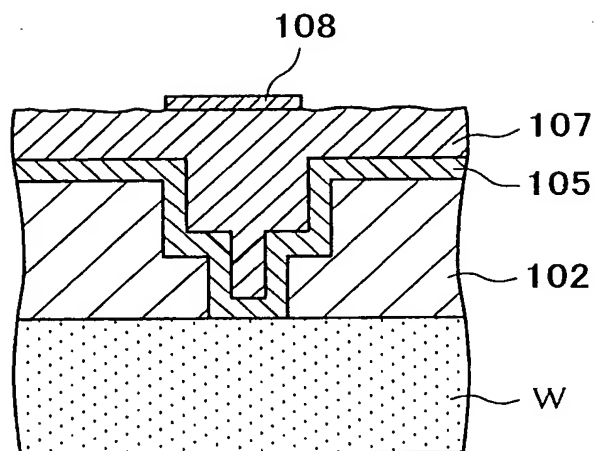


FIG.21

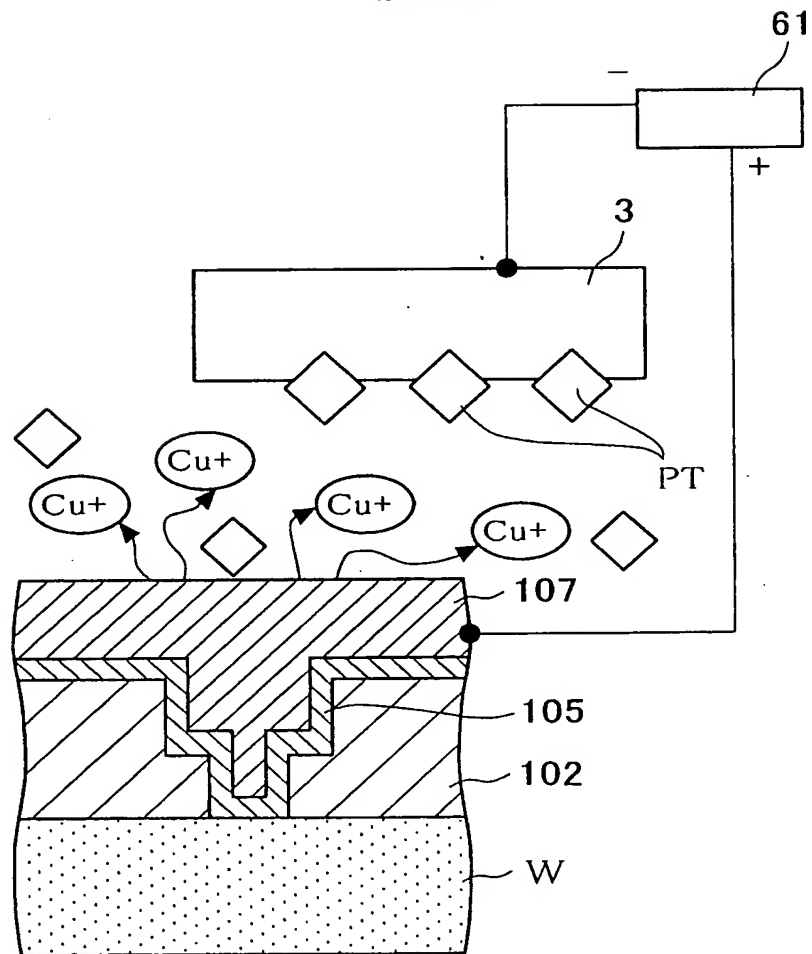


FIG.22

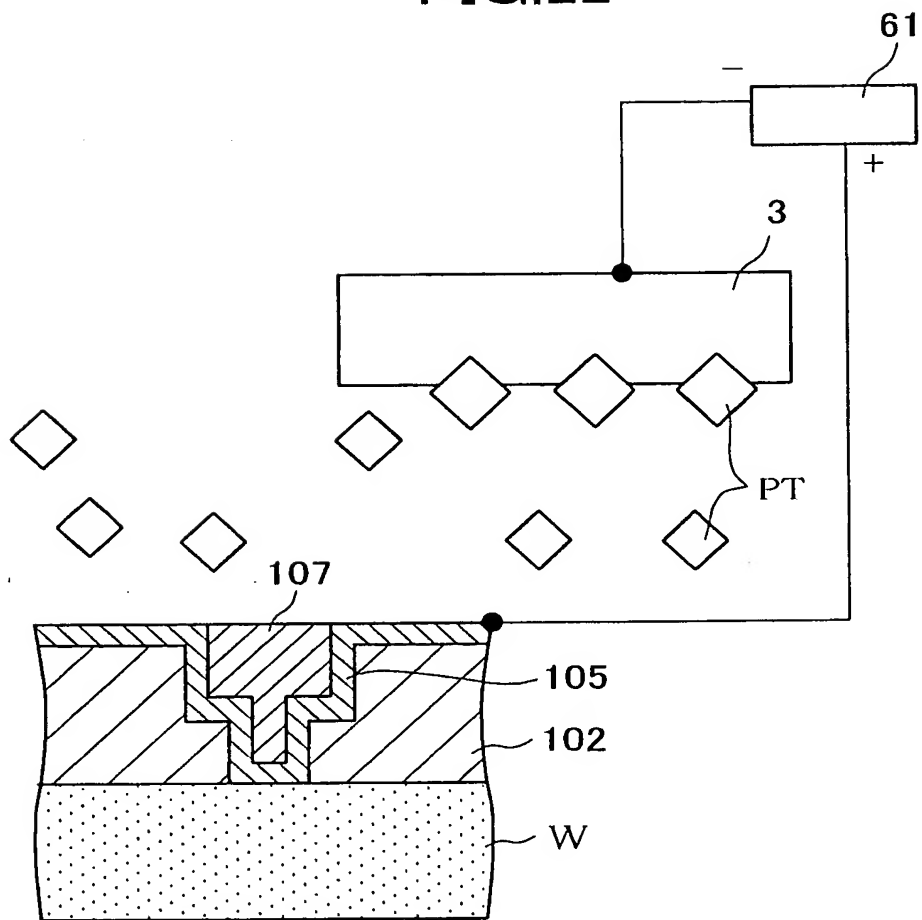


FIG.23

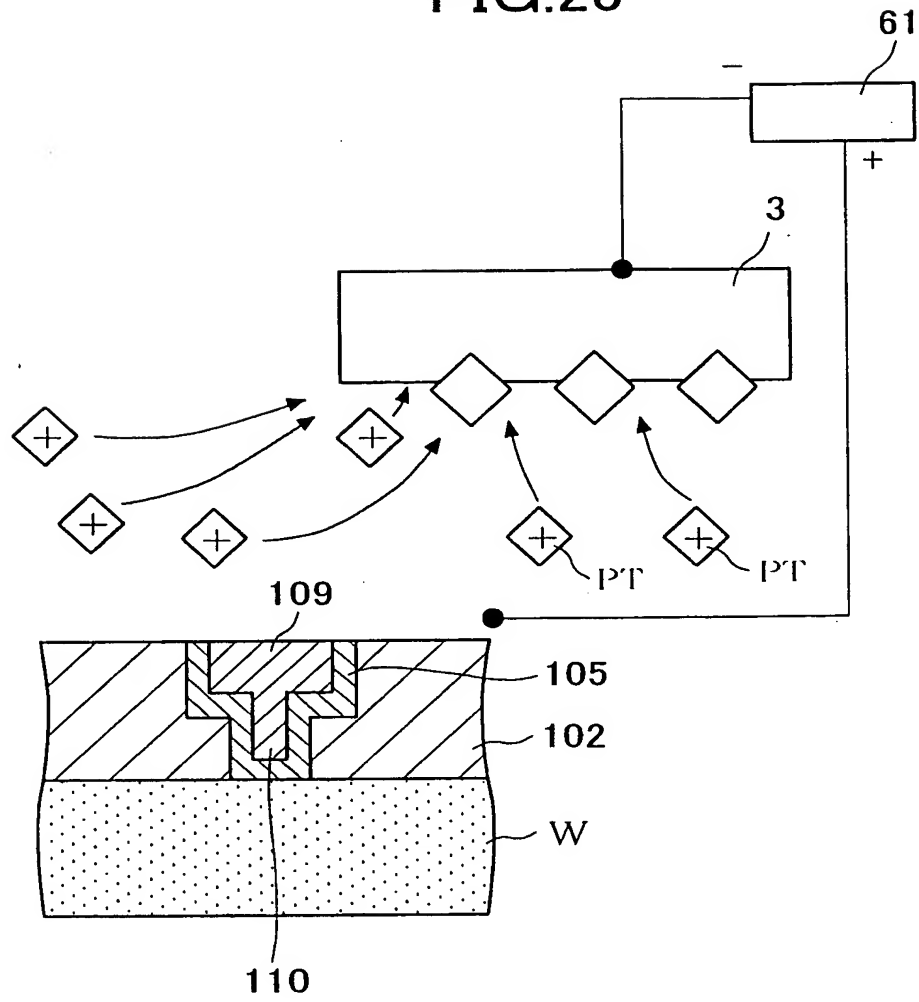




FIG.24

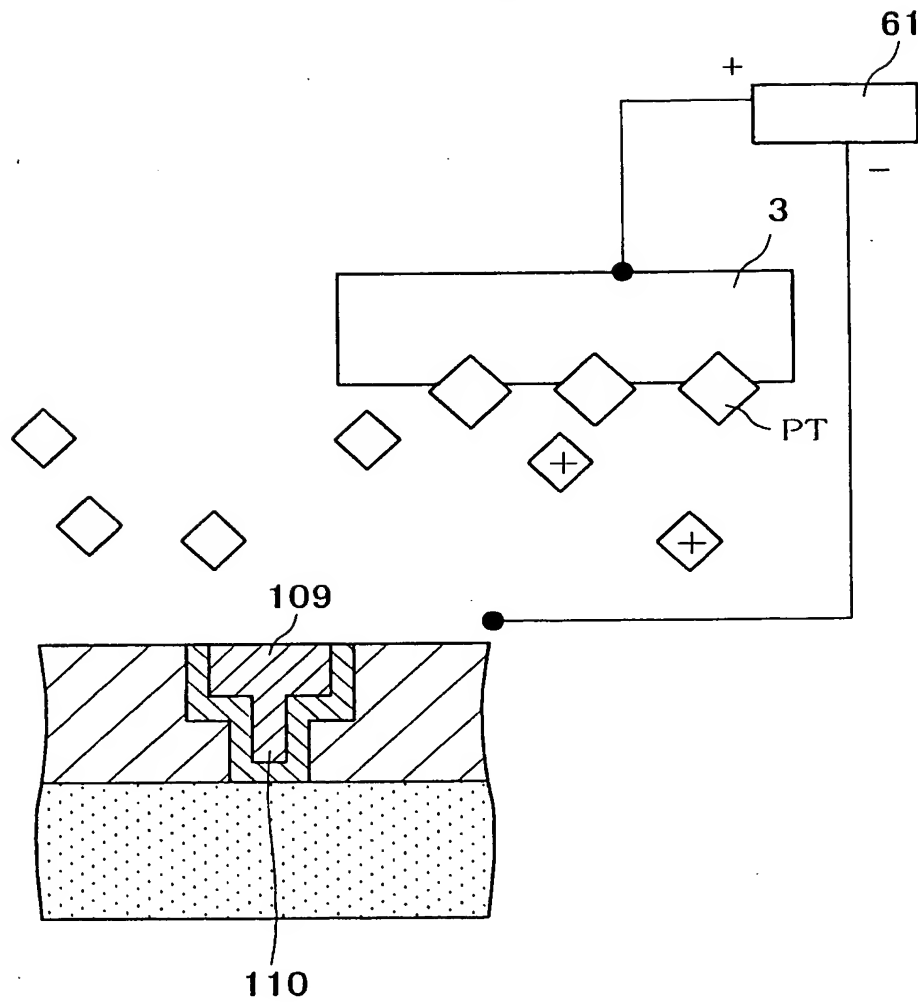


FIG.25

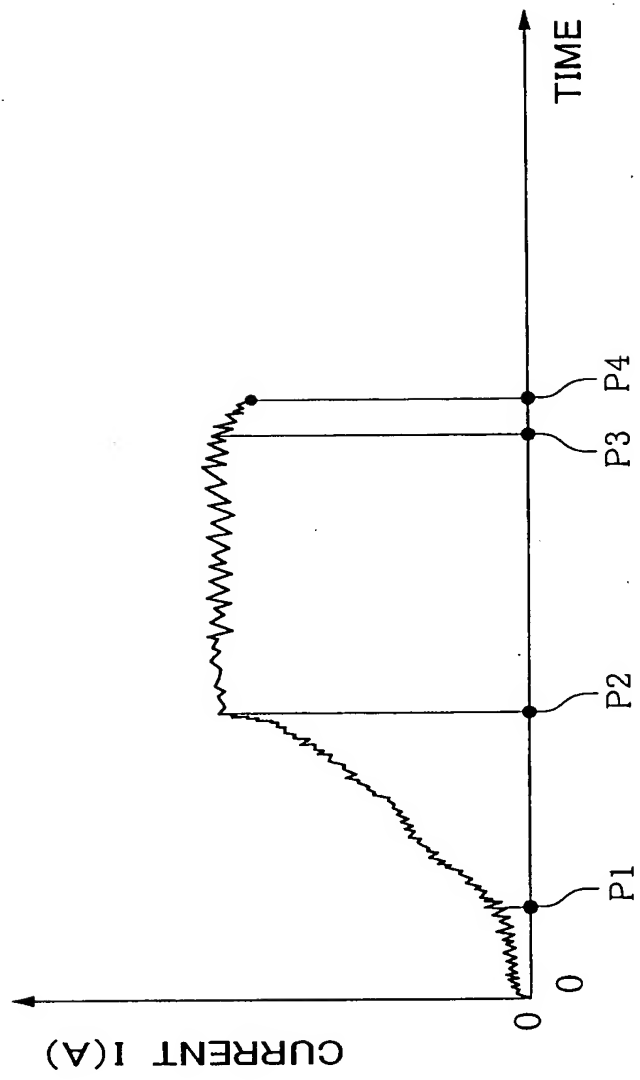


FIG.26

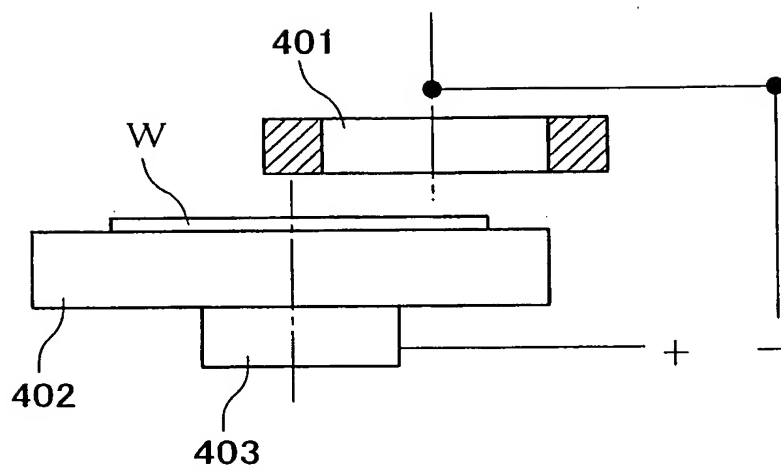


FIG.27

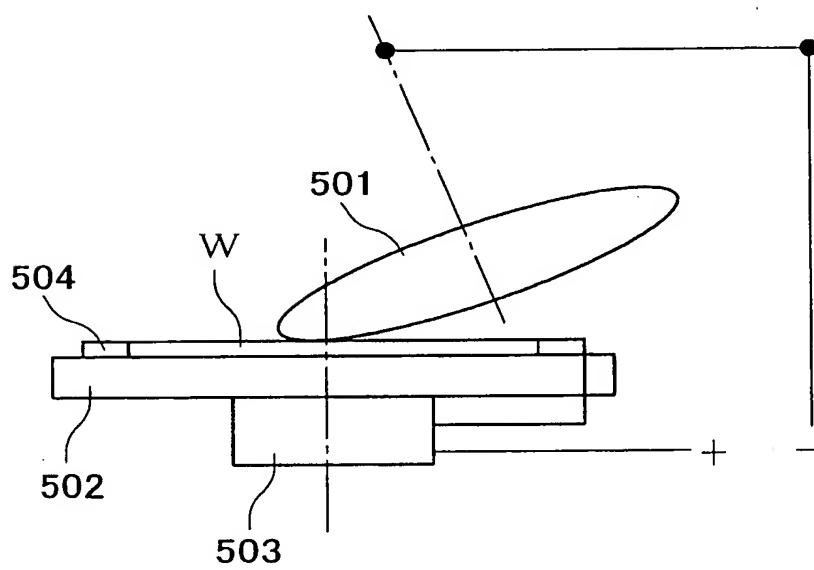


FIG.28

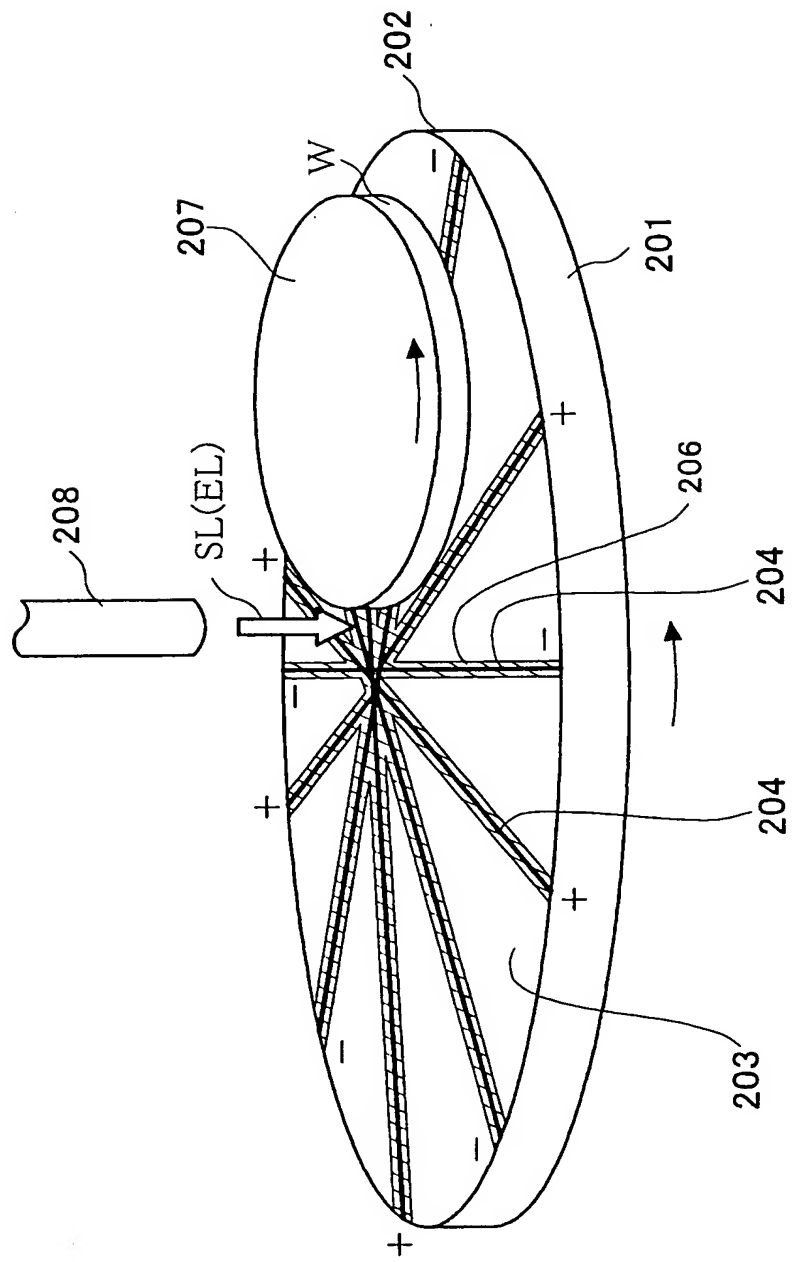


FIG.29

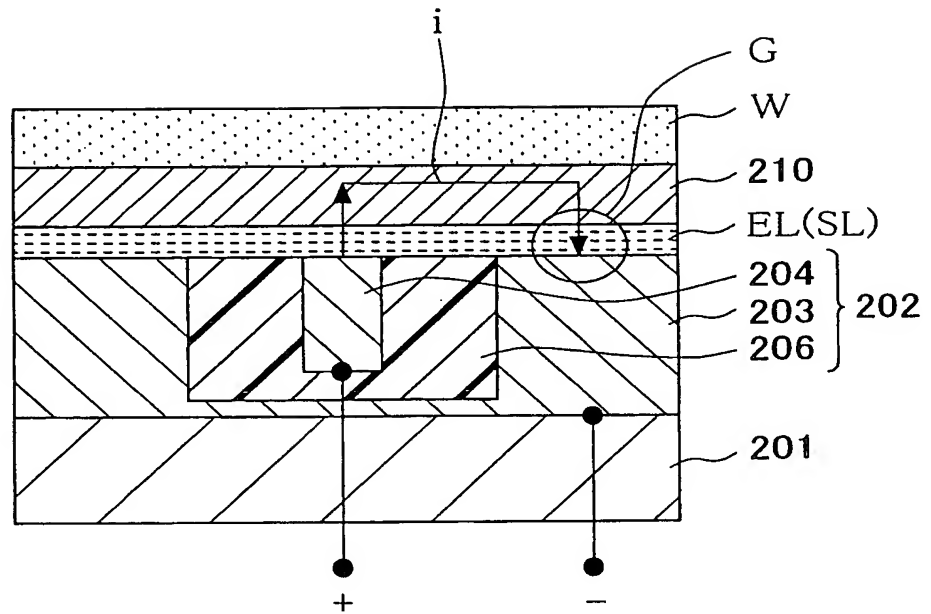


FIG.30

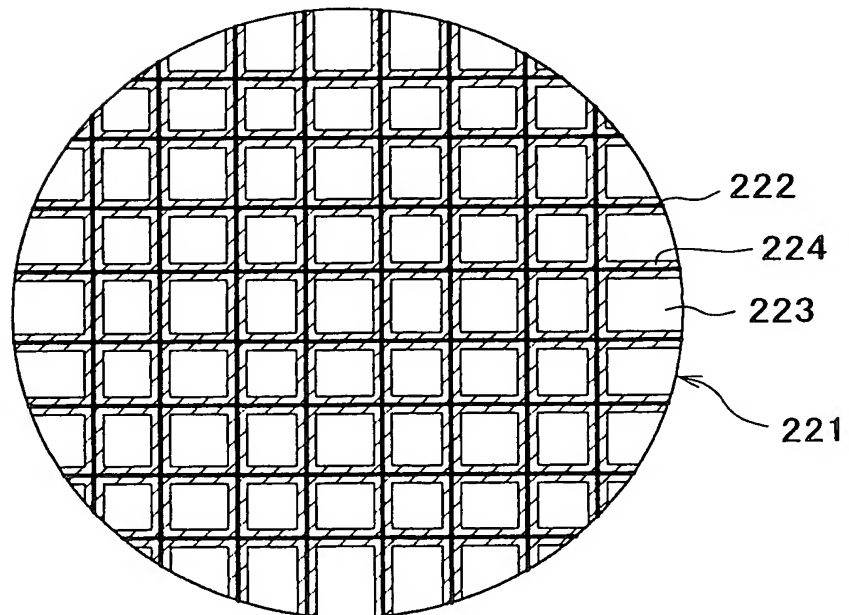


FIG.31

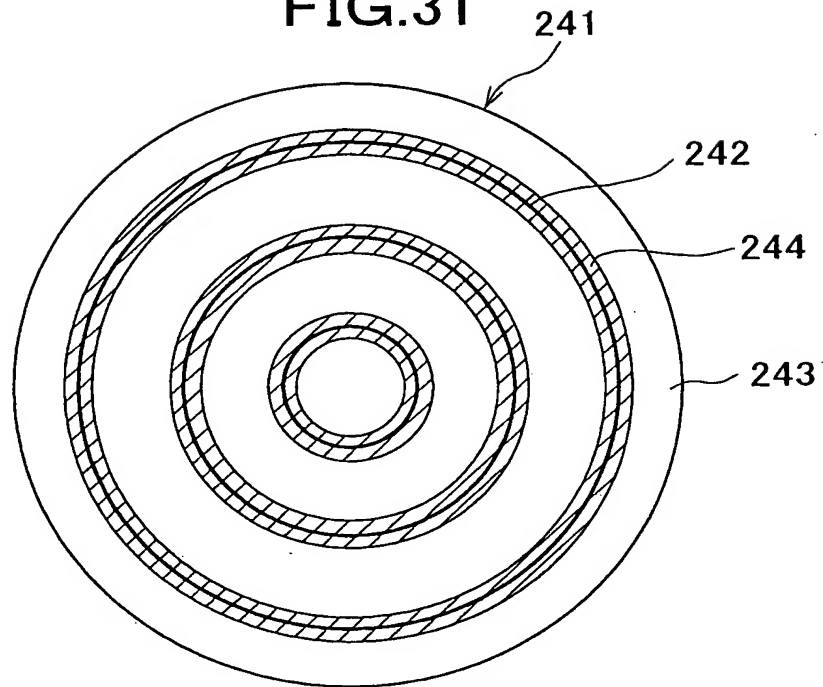


FIG.32

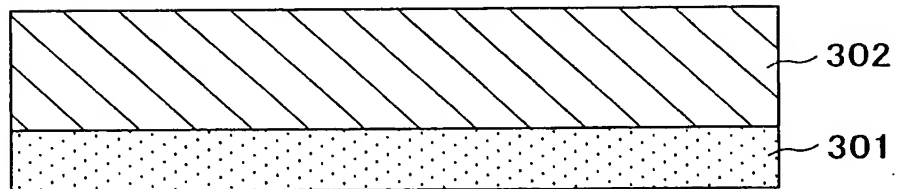


FIG.33

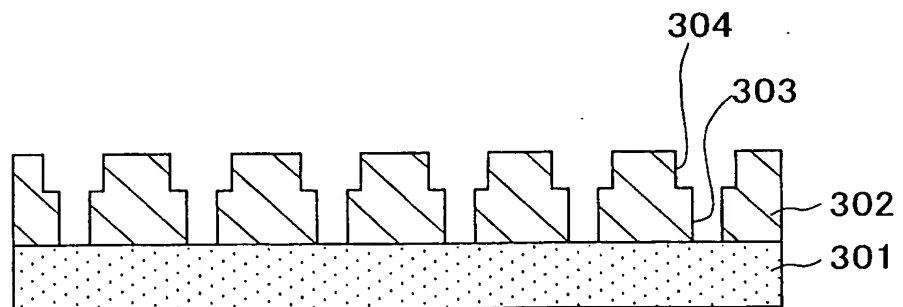


FIG.34

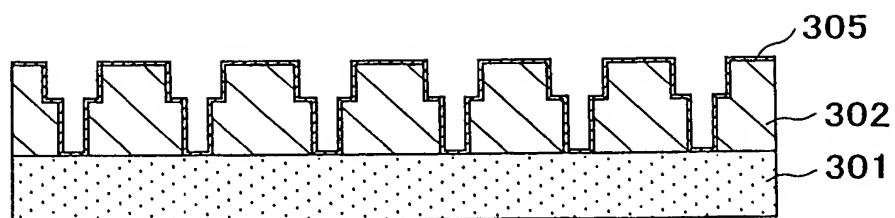


FIG.35

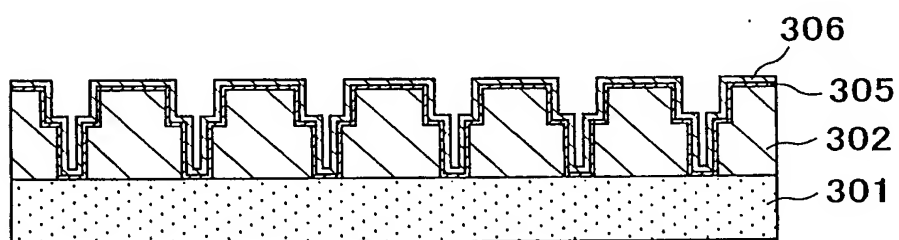


FIG.36

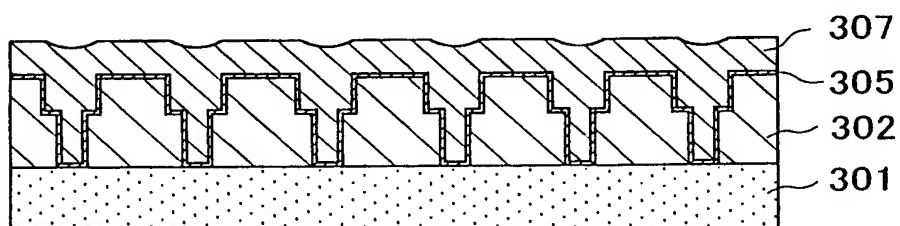


FIG.37

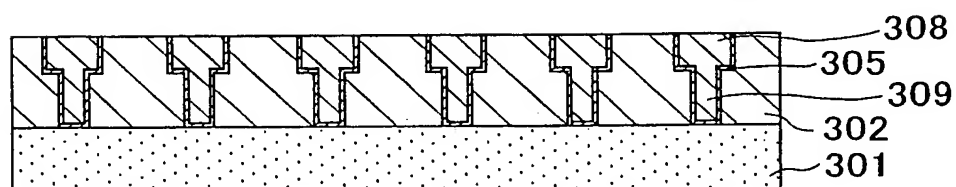


FIG.38

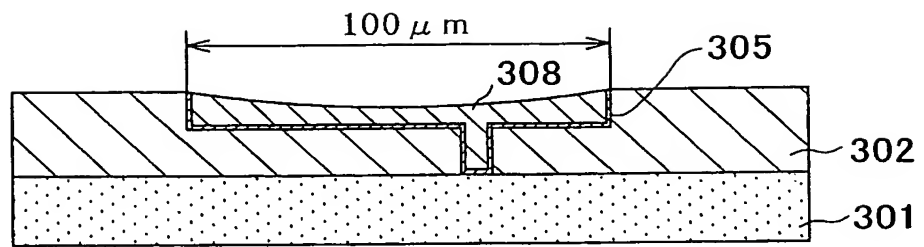


FIG.39

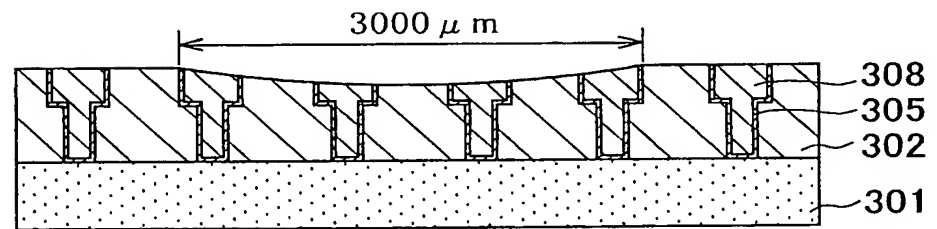


FIG.40

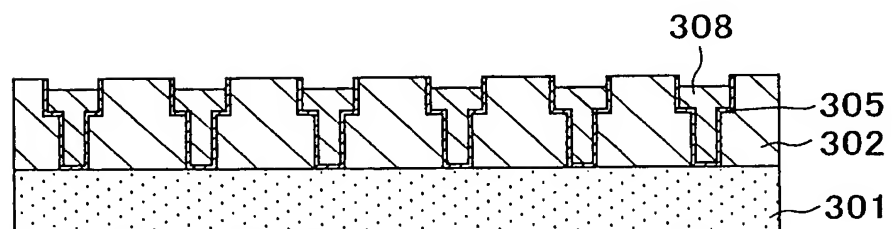




FIG.41

